Faizghar Lecture Series (Presentation # 28)

Myth of Desi & Valayti (Rural & Crossbred) Poultry

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Definition

- **Desi or Rural Chicken**

  Other Names are Rural poultry, Backyard or barnyard poultry, Free-range birds, Indigenous poultry, Local poultry, etc.

  Sometimes the term Organic Poultry is used which is partially true.

- **Farmyard or Crossbred Chicken**

  Other Names are Valaiti poultry, Exotic poultry, crossbred poultry, etc.

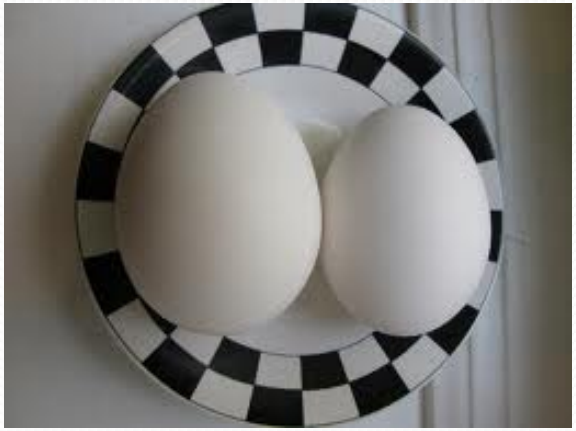
  Sometimes the term Commercial is used which is partially true for Desi poultry also.

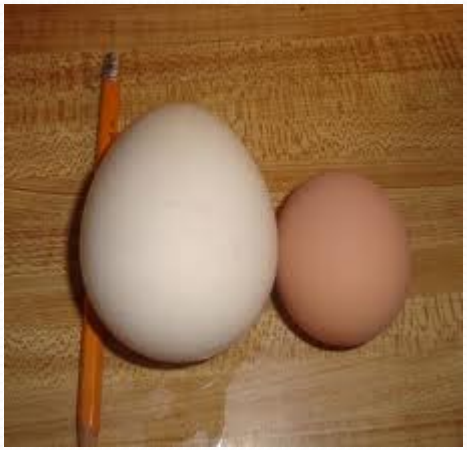
- **Some Misnomers**

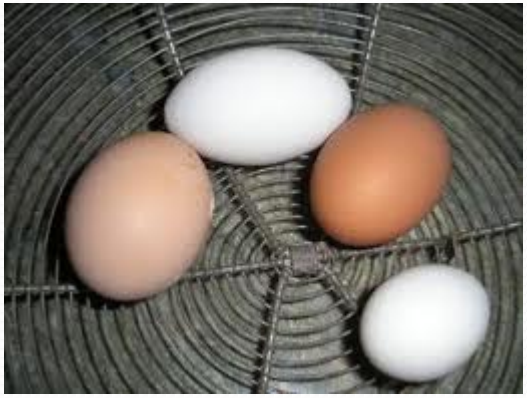
  The term Valaiti poultry means the full range of imported birds which is true for Farm or crossbred poultry as well as for a wide variety of Desi or rural poultry.

Some Desi & Farmyard Breeds

Some Desi & Farmyard Eggs







Factors Affecting on Consumers

- **Psychology of Food**

  FEATURES

  Religious & cultural beliefs, Breed, Age, Color, Smell, Size, Structure, etc.

- **Food Value for Consumers**

  FOOD INDEX

  How much Calorie, Protein, Fat, Vitamin, Mineral, Moisture, etc?

- **Consumer's Economics**

  EECONOMIC INDEX

  Availability, Cost, Purchasing power, Value (per $ availability), Benefits, Losses, etc.

Present Status of Chicken Eggs..

Parameter	Scale	Desi Egg	Farm Egg
A: Permanent Features (It Determines Consumer Psychology)			
Natural size or weight	g	27 to 40	40 to 75
Color	--	Brown shell, dark yolk	White shell, light yolk
Taste	--	Peculiar	Plain
B: Food Value (It determines Consumer's Health)			
Calories	#	44	78
Protein	g	9	14
Fat / Cholesterol	g /mg	3.2 / 120	5.3 / 213
Vitamin	--	A, B, C, D, E, K	A, B, C, D, E…
Mineral	--	No data	Co, Fe, Ca, P…
Moisture	ml	29	53
Aggregate Food Value (B)	--	**1**	**2.66**

Present Status of Chicken Eggs

Parameter	Scale	Desi Egg	Farm Egg
C: Consumer's Economics (It Determines Purchasing Power)			
Total egg production in life	#	60 to 120	220 to 320
Hatchability	%	60	90 to 95
Loss in cooking	%	10	12
Supply line (availability)	--	Easy in rural areas	Easy in urban areas
Price of 12 (or 1)	Rs	150 (12)	100 (8)
Value against 1 US$	#	8	13
Farmer's profit against 1 egg	Rs	No account	2 to 4
Middleman profit against 1 egg	Rs	5	1
Aggregate Economic Value (C)	--	1	1.9
Aggregate Value (B+C)	--	**1**	**3.99**

Present Status of Chicken Meat..

Parameter	Scale	Desi Meat	Farm Meat
A: Permanent Features (It Determines Consumer Psychology)			
Poultry breeds	--	Layers (egg type)	Broilers (meat type)
Color	--	Dark red	Pink
Taste	--	Peculiar	Plain
B: Food Value of 100 g (It determines Consumer's Health)			
Calories	#	120	109
Protein	g	27	26
Fat / Cholesterol	g /mg	0.8 / 56	1 / 76
Vitamin	%	No data	A, B, C, D, E
Mineral	--	No data	Fe, Mg, P….
Moisture	%	65	70
Aggregate Food Value (B)	--	**1**	**0.9**

Present Status of Chicken Meat

Parameter	Scale	Desi Meat	Farm Meat
C: Consumer's Economics (It Determines Purchasing Power)			
Weight at slaughter (Age wks)	kg	1.5-3.0 at 60-90 wks	1.75 – 2.5 at 7 wks
Bone : Meat ratio	--	70 : 30	30 : 70
Mortality rate (first 6 weeks)	%	28	5 to 8
FCR (kg feed/kg wt gain) 7 wks	--	4.7	1.9
Weight gain (first 6 weeks)	kg	0.5 to 0.75	2
Loss in cooking	%	32	37
Price per kg live-weight	Rs	200	100
Farmer's profit against 1 kg live	%	20	30 to 40
Aggregate Economic Value (C)	--	1	4.7
Aggregate Value (B+C)	--	**1**	**4.2**

Conclusion...

Desi Breeds (Rural Poultry)

ADVANTAGESl

- It's a scavenger bird and fed on rural waste and in this way biodegrade the organic wastes thus cleans the environment.
- Partly helps in poverty alleviation in the rural masses.
- Has genes for survival under harsh rural scavenging conditions.

DISADVANTAGES

- It is a non-descript chicken with slow growth rate (Adult male: 1.40 kg; Female: 1.32 kg).
- It has poor egg production (2.50 dozens / bird)
- Poor feed conversion efficiency (14.73/dozen eggs)
- Small egg size (44 gm/egg)
- Low economic returns due to low carcass weight, small egg size, very low egg production, late maturity and broodiness.

Conclusion

Farm Breeds (Crossbreeds)

ADVANTAGES

- They are crossbred birds with shorter productive age, i.e. only 45 days are needed to reach a weight of 1.25 to 2.25 kg/chicken.
- Crossbred chickens yield 200 to 250 eggs per year or 250 to 320 eggs in their life. The eggs are small to jumbo size, i.e. 45 to 75 g/egg.
- They are the best feed converter into egg and meat, i.e. 1.9-2.5 in broilers and
- Best in hatchability which is up to 95%.
- Very cheap source of animal protein with comfortable availability.

DISADVANTAGES

- Lesser in taste than indigenous breeds and whitish in color which are not public demands.
- Broiler meat has more water percentage thus faces cooking loss of nutrients.

Recommendations

First

Both types of poultry is important so should be raised rigorously without each other's cost. Rural poultry needs more attention thus it should be raised on factory-made modern farm feed with free-range mornings and barnyard confinement at night. Present equivalence of 4 desi eggs for 1 farm or crossbred egg OR 4 desi hens for 1 farm or crossbred egg should improved (from present 4:1 to 4:2 or 4:3)

Second

Desi or Rural poultry should be consumed locally and should not be pushed to urban areas so that it should contribute into food security and poverty alleviation process of rural communities. Similarly Farm poultry or crossbred should be retained in urban and peri-urban areas. Rural urban population is now 50:50 so in this way purchasing power of the whole population will be increased thus bridging up protein supply gap up to 72 g per head per day.

Third

Desi-valaiti arguments and discussion is not a matter of 'prejudice and pride', it should be stopped.

Presenter's Profile in Food Security

WORK EXPERIENCE

- As Associate in Obesity Research Center, Columbia University School of Human Nutrition, New York, USA, 6 months in 2001
- As Assistant Dietician in Loma Linda University of Medical Sciences, California, USA, 6 months in 2000
- As Assistant in City Gym & Fitness Center, Warsaw, Poland, for 6 months in 1991
- As 'Chief Nutritionist' in First Diet-Care Research Center, Lahore, since 1997
- As 'Animal Production Specialist' in L&DDD, Punjab for 5 years in 1983-1988.
- As 'Research Associate' in UVAS (then CVS), Lahore for 18 months in 1982-1983.

TRAINING

- One year Diploma from Institute of Public Health, Lahore, 1998

EDUCATION

- Pakistan: B. Sc. (Hons) Animal Sciences; M. Sc. (Hons) Human Nutrition; M. Sc. Environment Sciences and DPH.
- Poland: PhD Food Ecology.

Thanks a Lot